

## ABSTRACT

**BODY-WORN PERSONAL COMMUNICATIONS APPARATUS**

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In a body-worn personal communications apparatus, for example a wrist-carried wireless telephone, an antenna (102) is a helical or other physically-shortened electric antenna. Such an antenna (102) has good performance in a range of orientations by making use of the enhanced normal component of electric field close to the body.

In one embodiment a microphone (114) is located at the top of the antenna (102). The microphone (114) can act as a top load to the antenna, thereby enabling the use of a shorter antenna. The antenna (102) may be formed from coaxial cable, enabling it to provide electrical connections between the microphone (114) and transceiver circuitry in the body of the apparatus. By arranging for the microphone (114) to have low impedance at radio frequencies, the coaxial cable acts as an inductive stub and enables the antenna (102) to be further shortened.

(Figure 2)

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